

July 5, 2005

Gary Emsiek
Inland Empire Builders
23201 Mill Creek Drive, Suite 130
Laguna Hills, CA 92653

Subject: Sensitive Plant Survey Results for Serrano Highlands

Dear Mr. Emsiek:

This letter serves as a follow-up report to the Serrano Highlands Biological Resources Analysis prepared by LSA Associates, Inc. (LSA) and presented to Inland Empire Builders (IEB) in June 2005. This report addresses the results of a focused survey for sensitive native plant species, which, due to their seasonal occurrence, were previously not surveyed for.

The "Serrano Highlands" property is located at the northern terminus of Peachwood Street in the City of Lake Forest, Orange County, California. The site is located within the jurisdiction of the Central/Coastal Orange County Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). Some portions of the property have utility easements in place; the easements are held by NCCP-participating landowners. The balance of the land is owned by a nonparticipating landowner. The proposed use of the property is residential development, and current adjacent uses include existing residential, agriculture, municipal water district, undeveloped open space, and an office campus. It is located in the *El Toro, California* quadrangle of the United States Geological Survey 7.5-minute series topographical map. The property is within Section 11 of Township 6 South and Range 8 West. The site is located within the planning boundaries of the Central/Coastal Orange County NCCP/HCP. The project area is 23.79 (ac) acres. The proposed project includes the grading of 19.31 ac and fuel modification on an additional 4.48 ac. For the purposes of this analysis, a study area of 33.85 ac was surveyed.

A literature review and a records search were conducted to identify the existence or potential occurrence of sensitive or special-interest biological resources (e.g., native plant species) in the vicinity of or within the study area. Federal and State lists of sensitive species were examined.

Several sensitive native plant species identified in the initial literature search were subsequently excluded from further consideration because the property either lacks suitable conditions to support these species or the site is located well beyond their normal range. Habitat for some of the plant species included in the database search results is present on site.

ASSESSMENT METHODS

Following the compilation of the aforementioned data, botanical and biological surveys were conducted by LSA biologists on October 12, 2004. The results of these surveys are presented in the

Serrano Highlands Biological Resources Analysis dated June 2005. Some of the sensitive plants potentially present are not detectable except in spring of most years; therefore, a survey was required in the spring to further ascertain the presence or absence of those species. On June 17, 2005, LSA biologists Blake Selna and Chris Meloni surveyed the site for the sensitive native plant species on the lists yielded by the database searches. The time of the survey coincided with the greatest likelihood of sensitive plants being observed, which was based on literature and reference populations. The entire site was surveyed on foot. A supplementary plant list was generated, which includes those species observed on site during the spring survey that were previously unrecorded (Attachment).

RESULTS

Sensitive species are broken down into those listed as endangered or threatened by the State and/or federal agencies and those not listed as such.

Listed Species

Listed plant species or species proposed for listing that were identified in the literature review as potentially occurring on site or in the study area included thread-leaved brodiaea (*Brodiaea filifolia*) and slender-horned spineflower (*Dodechema leptoceras*). The probability of either species occurring on site is low. No federally listed, State listed, proposed endangered, or threatened plant species were observed on site during the spring survey.

Nonlisted Species

The nonlisted, sensitive, plant species that have a moderate to high probability of occurring on site are Catalina mariposa lily (*Calochortus catalinae*), intermediate mariposa lily (*Calochortus weedii* var. *intermedius*), and many-stemmed dudleya (*Dudleya multicaulis*). No nonlisted, sensitive plant species were observed on site during the spring survey.

If you have any questions regarding this report or would like to discuss the project further, please contact me at (949) 553-0666.

Sincerely,

LSA ASSOCIATES, INC.



Blake Selna
Project Manager
Senior Biologist

Attachment: Supplemental Plant List

ATTACHMENT A
SUPPLEMENTAL SPECIES LIST
VASCULAR PLANT SPECIES OBSERVED

LSA biologists Blake Selna and Chris Meloni observed the following vascular plant species in the Study Area during a site survey conducted on June 17, 2005.

* Introduced, nonnative species

ANGIOSPERMAE: DICOTYLEDONAE

DICOT FLOWERING PLANTS

Apiaceae

- Daucus pusillus*
- * *Foeniculum vulgare*

Carrot Family

- rattlesnake weed
- sweet fennel

Asteraceae

- * *Carduus pycnocephalus*
- Conyza canadensis*
- Corethrogyne filanginifolia*
- * *Cynara cardunculus*
- Deinandra fasciculata*
- Eriophyllum confertiflorum*
- * *Gnaphalium luteo-album*
- Gnaphalium stramineum*
- * *Picris echioides*
- * *Sonchus asper*
- Xanthium strumarium*

Sunflower Family

- Italian thistle
- common horseweed
- common sand-aster
- artichoke thistle
- fasciated tarweed
- long-stemmed golden yarrow
- weedy cudweed
- cotton-batting plant
- bristly ox-tongue
- prickly sow-thistle
- cocklebur

Convolvulaceae

- * *Convolvulus arvensis*

Morning-Glory Family

- field bindweed

Crassulaceae

- Dudleya lanceolata*

Stonecrop Family

- lanceleaf dudleya

Hydrophyllaceae

Emmenanthe penduliflora
Phacelia cicutaria

Lamiaceae

Trichostema lanceolatum

Myoporaceae

* *Myoporum laetum*

Orobanchaceae

Orobanche bulbosa

Polygonaceae

Chorizanthe procumbens

Scrophulariaceae

Antirrhinum nuttallianum
Keckiella cordifolia

Mimulus aurantiacus
Mimulus brevipes

Solanaceae

* *Nicotiana glauca*
Solanum douglasii

Waterleaf Family

whispering bells
caterpillar phacelia

Mint Family

vinegar weed

Myoporum Family

myoporum

Broom-Rape Family

chaparral broom-rape

Buckwheat Family

prostrate spine-flower

Figwort Family

Nuttall's snapdragon
heart-leaved bush-
penstemon
bush monkey flower
slope semaphore

Nightshade Family

tree tobacco
Douglas' nightshade

ANGIOSPERMAE: MONOCOTYLEDONAE

Liliaceae

Chlorogalum pomeridianum

Poaceae

* *Brachypodium distachyon*
* *Bromus diandrus*
* *Bromus madritensis*

MONOCOT FLOWERING PLANTS

Lily Family

wavy-leaved soap plant

Grass Family

purple false brome
common ripgut grass
red brome

Taxonomy and scientific nomenclature conform to Hickman (1993). Common names for each taxa generally conform to Roberts (1998) except where Abrams (1923, 1944, 1951) and Abrams and Ferris (1960) were used, particularly when specific common names for species were not identified in Roberts (1998).